

Artificial Islands off the Gaza Coast

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Introduction

One innovative idea in the context of the current Middle East dispute is the construction of artificial islands off the coast of the Gaza Strip. The idea resembles a plan to build islands off Israel's central coastline, though the Gaza project is vastly more complicated. Nevertheless, artificial islands could provide a solution to the problem of population density in the Gaza Strip and contribute to a resolution of the Israeli-Palestinian territorial dispute.

The idea of creating offshore islands is also partly an attempt to shatter the fixed assumption that territorial disputes in the Middle East must be solved according to the "zero sum" principle, that is, an Israeli profit demands a Palestinian loss, and vice versa. A similar approach could likewise hold true in the dispute over water, as technological breakthroughs

in the desalination process could recast this aspect of the political conflict into an economic issue with a viable solution.

Artificial islands exist elsewhere in the world – in Japan, the United States, and Monaco, among other



Map of Gaza Strip, with Islands Added

countries – and are planned for construction in Israel. Government level talks were held in late 2002 on the theoretical implications of building two artificial islands off the Israel coast, and approval was given to invite bids for constructing one island, residential and commercial in nature. This decision was based in

part on a report prepared by a government supported Dutch-Israeli steering committee that met between 1997 and 2000.

The committee's work included the examination of a coastal section in the center of Israel, between Hadera (35 kilometers north of Tel Aviv) and Palmahim (10 kilometers south of Tel Aviv). It assessed the environmental, technological, legal, and economic feasibility of constructing artificial offshore islands. The environmental feasibility depends on routine maintenance for preventing damage to the coast and the continental shelf. Some of the report's conclusions are applicable, at least theoretically, to the Gaza Strip.

Artificial Islands in a Peace Settlement

The Israeli-Palestinian territorial dispute and the debate over the Palestinian refugees' "right of return" were two of the three main issues blocking the permanent agreement that was debated in the Camp David conference (July 2000) and the Taba talks (December 2000 – January 2001). The third major point under contention was sovereignty over East Jerusalem, and within it the Old City.

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At Taba President Clinton proposed a transfer of Israeli territory adjacent to the Gaza Strip (the Halutza Sands) to the Palestinians in exchange for an area that includes blocs of Jewish settlements in Judea and Samaria. The Halutza Sands trade was designed to address the problem of accelerated population growth in the Gaza Strip (numbering 1.2 million people) and to absorb Palestinian refugees willing to settle in Halutza within the framework of the "right of return." This idea sparked vigorous opposition among large sectors of the Israeli public who felt the surrender of land within the Green Line constitutes a flagrant crossing of a "red line," especially since it would be accompanied by an Israeli withdrawal from almost the entire West Bank and Gaza Strip. The Palestinians too were less than enthusiastic over the idea, and in any case, unequivocally rejected it as a viable solution to the refugee problem.

The establishment of islands, however, would create new, undisputed areas. They could be part of the compensation to the Palestinians for land they would be giving up in the West Bank, and it could facilitate resolving the "right of return" issue as one of several solutions raised in the Taba talks, such as the absorption of refugees in the Palestinian state, in host countries where refugees currently abide, in countries outside of the region, and within Israel through a limited-scale family reunification scheme. Thus, the refugees returning to the area would not necessarily be resettled on the islands.

The Palestinians might welcome the islands as a way to mitigate the Gaza Strip's land shortage. At the same time, they might also reject the project, claiming that since the islands would be established in Palestinian territorial waters, there is no reason to consider them a substitute for

territory within Israel's Green Line.

Furthermore, the islands will not provide a political answer to Palestinians who see symbolic importance in Israel's withdrawal to the 1948 lines. This imperative will only be removed if the Palestinians realize that they will likely gain no better territorial acquisition from Israel than what has already been offered, and that artificial islands are the only practical solution to an additional landmass in Gaza. Consequently, any contribution to a solution in the form of islands will probably become feasible only when the gap in the positions between the two sides has been narrowed.

It is also significant that the project has the potential for wide-scale cooperation between Israel and the Palestinian Authority (PA) under international sponsorship. The islands could furnish employment in tourism, commerce, and services and become free trade zones. In an era of regional



Model of Proposed Artificial Island for Herzliya Coast, overview from south to north

peace, a chain of islands off the Gaza and Israeli coasts could convert into a Middle East Riviera, much like the isles of Greece and Turkey. Quiet coastal waters could offer suitable conditions for alternative marine transportation, as well as a unique expanse for water sports and tourism.

Dimensions to the Island Project

Technological Feasibility. The construction of artificial islands has been proven technologically feasible. Extensive experience has been acquired from large-scale projects in Japan, Holland, Hong Kong, the United States, Monaco, and elsewhere. In most cases the physical conditions were more complicated than those off the Gaza coast where the continental shelf reaches to a fairly manageable depth of thirty meters.

Financing. Island building is a relatively expensive operation. Nevertheless, advances in technology have led to cost reductions. According to a preliminary estimate, the price tag is roughly \$600,000 per dunam (one-quarter of an acre), so that the cost of each island would be at least two and a half billion dollars. Right now this figure is economically profitable for the area off the coast of Tel Aviv, but not so for the Gaza Strip. Nonetheless, local property values cannot be measured in an ordinary financial context when the land at stake is contested by opposing states. Therefore, the cost of the islands should not be assessed according to the financial value of current Gaza Strip property, but in terms of its

political value as part of a permanent Israeli-Palestinian peace settlement.

The financing for the project could come from special grants and loans put up by the international community if it estimated that the project significantly contributed to a permanent peace agreement. The loans might be repaid by selling off part of the islands' real estate. The property value would likely be higher than on the mainland because of the

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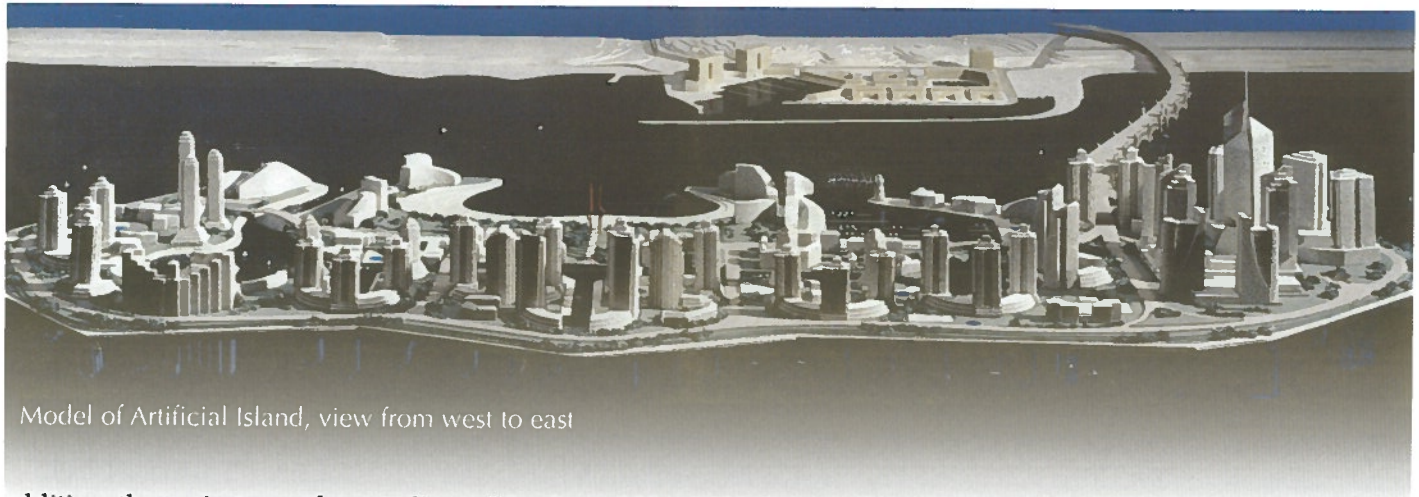
large scale construction, the luxury housing (slated to constitute at least 25% of the housing), and the conversion of commercial areas into free trade zones. Israel, too, would probably join the project, or at least extend token support, if it judged that the islands contributed to conflict resolution.

The financing of island construction confirms the experience of the states donating money to the Palestinian Authority; in other words, support for development of the infrastructure is far more preferable than direct monetary support to a system rife with corruption and

inefficiency. The creation of offshore islands would yield long-term economic and social benefits, perhaps even exceeding other infrastructure projects. The project would also be viable in periods of additional security constraints and political instability - compared, for example, to factories that could be demolished or crippled. This notwithstanding that the Palestinians may claim that money intended for constructing the islands should be diverted to more important and urgent needs in establishing the Palestinian state.

Environmental Concerns. Island construction requires ongoing maintenance because of the impact on the shorelines. One potential objection to the establishment of artificial islands is the damage they could cause to the coasts by blocking the silt deposits from the Nile. This hazard can be overcome by constructing the islands 600 to 1000 meters offshore and adding supporting bulwarks. Modern technologies allow for conveyance of shore-building sands from the southern to the northern end of the project. Furthermore, to protect the Gaza coast, it would be necessary to transport the accumulated sand to the area between the island and shoreline by means of sea bulldozers or hydraulic systems. Specific measures will have to be taken for littoral protection, such as submerged or extruding wave breakers at problematic areas along the coast.

International involvement would probably be needed to guarantee the routine upkeep of the project's environmental requirements. In



Model of Artificial Island, view from west to east

addition, the project must be coordinated with Israel to insure that all the necessary warning devices for protecting the coastal line are included.

Security. The islands are not likely to create a major security threat to Israel despite the significant increase in the Gaza coastline.

Legalities. According to international law, a sovereign state may create artificial islands built out of material dredged from the sea within its territorial waters (twelve nautical miles) for any purpose it desires, provided that the islands do not interfere with international maritime routes. It is in Israel's interest that islands are constructed under sound conditions that recognize and respect Israel's environmental needs, perhaps more easily guaranteed before a Palestinian state has been established.

Visualization

For the sake of illustration, consider that a chain of three artificial islands is established off the Gaza Strip at a distance of 600 meters from the shoreline. The average size of each

island would be 4,000 dunams, large enough to provide housing for 150,000 people and offer employment in tourism, commerce, and services. Or, one of the islands could be used for non-residential purposes, for example building an airport, in order to free area on the mainland for housing.

From a socio-economic point of view, the islands would be populated with a heterogeneous population, with at least 25% of the area devoted to luxury housing. Note that the absorption of a massive, lower-class population on the islands would doom the project to failure.

Conclusion

Construction of artificial islands off the Mediterranean coast is not a freestanding idea. Rather, it represents part of a long-term regional strategic vision that addresses both Israeli and Palestinian needs, specifically, common issues of land shortage and high population density.

For the Palestinians, a series of artificial islands off the Gaza coast is likely to be economically attractive land that could absorb approximately

400,000 people (one-third of the current population in the Gaza Strip). The project is feasible from all points of view, but its realization will depend on overcoming the major political and financial hurdles. Therefore, it seems that the project would be most relevant in the last phase of the negotiations on a permanent peace settlement between Israel and the Palestinians. The Palestinians will probably find the island project attractive only after they have exhausted their ability to receive a better territorial deal from Israel. The international community would likely show interest only if convinced that the project would be a significant step towards a permanent peace agreement. As long as the sides remain beyond the range of a political agreement, it is doubtful whether the international community will commit itself to a project of this scope; on the other hand, after a permanent peace agreement is attained, it is highly unlikely that the international community would be willing to invest such enormous sums in additional territory in the form of artificial islands.